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# Government information literacy in the “century of information” (Brown 2007)

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## Abstract

There are currently numerous drivers for change within the Scottish Government (SG), including the changing nature of the workforce and the changing skills and abilities required by the SG to undertake its work and achieve its goals in policy-making. The SG's Government Economic Strategy (Scottish Government 2007a), its Skills for Scotland: A Lifelong Skills Strategy (Scottish Government 2007b) as well as the internally focused Skills and Learning Strategy (Scottish Government 2007c) and Information Strategy (Scottish Government 2008a) all point to a number of developments that are creating demands for new skills and behaviours across the Scottish Government:

Taking these strategies as a starting point, the authors have developed an Information Literacy Strategy for the Scottish Government (Scottish Government 2008b) - informed by local and national information literacy studies and recommendations from research carried out by the Scottish Information Literacy Project (Crawford and Irving 2009) and a survey of information use within the Scottish Government (Scottish Government 2008c).

The focus of this study is information literacy in the workplace. Using interview based research and an online survey, the Scottish Information Literacy Project and the Scottish Government Library Services sought to provide a picture of information literacy in the Scottish Government.

Information literacy was identified as an essential workplace decision making skill for Scottish Government staff. Information seeking skills were identified as a key area of deficit amongst Scottish Government staff, together with an awareness of the need for access to a wide range of information sources, and critical thinking and evaluation skills to support high quality decision making, was generally lacking. As a result of the research findings, the authors have developed and are rolling out an information literacy programme across the Scottish Government. The authors have also established stronger internal partnerships within the Scottish Government with those areas engaging in training and skills.

## Keywords

Information literacy, workplace learning, Scottish Government, information management, information skills, civil service.

## 1. Introduction

A smarter Scotland is at the heart of everything we want to achieve for this country. We can only build a Scotland that is wealthier and fairer, one that is healthier, safer, stronger and greener, if people are equipped with the skills, expertise and knowledge for success. (Hyslop 2007, p2)

The Scottish Government's (SG) Government Economic Strategy is clear on the importance of learning and skills.

Our people are our greatest economic asset. A skilled and educated workforce is essential to building our comparative advantage and to the delivery of sustainable economic growth (Scottish Government 2007a, p2)

Scotland performs well, relative to other countries, as regards the skills and qualifications of its workforce (Scottish Government 2005). However, this has not translated into enhanced economic performance. A key message from *Skills for Scotland: A Lifelong Skills Strategy* (Scottish Government 2007b) is that high levels of skills and qualifications must be matched by greater utilisation of skills to boost productivity and growth.

The SG's own corporate Skills and Learning Strategy (Scottish Government 2007c), recognises that one of the organisation's key assets is the information it holds, highlighting the development of skills to analyse and apply that information to the business of government as a priority. SG staff are encouraged to use and share their knowledge and experience across the organisation and to be lifelong learners. Thus, the organisation recognises the importance of information literacy, albeit implicitly rather than explicitly.

## 2. Information literacy in the workplace

Information literacy (IL) has been a subject of interest for Library and Information Studies (LIS) researchers and (mostly academic) librarians for some years, and there is a substantial body of research on the subject. Some of the concepts and experiences that underpin information literacy in the academic sector are transferable, but to be useful, they need to be adapted for the workplace context, not least, because there are fundamental differences in the information needs and information seeking behaviour of students and employees (Cheuk 1998; De Ruiter 2002; Oman 2001). Information problems found in the workplace are often messy and open-ended (Mutch 2000) and "the nature and shape of the environment which staff work in is now more complex than ever, and the skills that are needed extend beyond ICT to embrace the analytical and evaluate skills essential to effective information management" (JISC 2005).

Despite available techniques and tools to cope with the wealth of information, people continue to experience information overload and anxiety, disinformation or misinformation and may have insufficient time or inadequate skills to locate or share identified information (Kirton and Barham 2005). Some staff in large organisations spend up to half a day per week looking for information, often without finding it (Grant 2009). An information literate organisation will organise and describe its information assets -

enabling staff to identify and access information more efficiently than would otherwise be the case. Reducing the time spent searching for information and ensuring that a shared knowledge base is used. This shared information can be used to develop new knowledge and insights, and challenges to traditional workplace and professional practices and, ultimately, the development of more efficient processes and procedures (Bruce 2008).

Information literacy is, therefore, a set of skills and abilities which can improve the overall efficiency of any organisation (Oman 2001; O'Sullivan 2002). Indeed, a recent survey commissioned by Microsoft of 500 top UK decision-makers found that by 2017 ICT and information literacy will be regarded as second only to team working and interpersonal skills as the most important success factor for business. In fact, around a quarter of those surveyed ranked it as the number one skill for forthcoming success. (Microsoft Research 2008, p11).

This is particularly true of the Scottish Government, since information is at the heart of all of its activities. Policy development requires SG policymakers to utilise the whole information lifecycle. A commitment to the development of evidence based policy means that decisions, advice and activities should be based on considerations of the best and most up to date research evidence, best practice examples, and the experience and expertise of those involved. However, this is not all - creating and maintaining a skilled workforce is one of the SG's chief aims (Scottish Government 2007c).

The SG creates and collects huge amounts of information, including its own historical records, input from other public sector partners and resources procured commercially or through partnerships. It thus becomes hard to sift information, locate and store the most relevant data and to avoid the stresses and inefficiencies associated with information overload. Information handling is central to the SG's business, and the organisation has a strong motivation to improve the efficiency with which information is handled and managed, in order, simply, to get the job done more efficiently.

### **3. Research methods**

Generally, the Scottish Government has a highly qualified and well trained workforce. Over 50% have a first degree (Scottish Government 2007c). From evidence gathered anecdotally and more formally (including feedback from training delivered by Library Services), the authors were aware that information literacy skills were generally lacking in the organisation. However, a sounder evidence base was required in order to take forward the information literacy agenda within the Scottish Government.

Aware that Dr John Crawford and Christine Irving of the Scottish Information Literacy Project were looking to take forward the workplace agenda in their study, the authors of this paper approached these two researchers during the Project's Open Meeting in 2007 and this marked the initial discussion about the project on information literacy for the SG. Given the limited pre-existing evidence base, Crawford and Irving decided to undertake interview based research applying a grounded theory approach which would allow research questions to arise naturally out of the data as it was collected. A standard list of questions was prepared which could be modified according to the type of staff being interviewed. In all 20 interviews took place, nine of those with Scottish Government staff (Crawford et al. 2008).

Concurrently, SG Library Services independently conducted an online information use survey across the Scottish Government (approximately 6000 staff). This produced 1038 replies which were collated and analysed by the SG Library Services staff. The information use survey contained 14 questions asking SG staff where they obtain their information as well as how they evaluate the quality of the services provided by Library Services.

#### 4. Research findings

The findings from the SG Library Services' information use survey were consistent with the findings from the Scottish Information Literacy Project's research in the SG workplace (Crawford and Irving 2009) as summarised below. These two pieces of research about the SG workplace broadly correlated with the wider findings by the Scottish Information Literacy Project's research about the workplace in general (Crawford and Irving 2009).

- Most of those interviewed had worked in the Civil Service for some years and were therefore familiar with the system as well as with the constraints of the Civil Service culture.
- There is an introverted information culture in the Scottish Government, characterised by a tendency for civil servants to rely on internal information resources only.
- People emerged as the principal source of information and this is shown by the fact that 99% of information use survey responses rated 'colleagues and contacts' as 'very' or 'fairly' useful information sources.
- There may be a link between level of work and information searching. For example, a highly qualified interviewee has both complex information needs and a clear understanding of how to address them.
- Searching for information is a significant activity.
- The internet is heavily used - 91.6% of responses from the survey alone rated the internet as a 'very' or 'fairly' important information source in their day to day work. However, the level and quality of internet searching is variable and staff could become more information literate simply by being aware of advanced searching techniques.
- The profile of Library Services in the Scottish Government is low. Those who use the service are generally 'very satisfied' with the results, but 73.3% of the information use survey respondents knew only a 'little' or 'nothing' about the services offered and 25.6% had not used any of the services. The comments below, regarding the Library Services' profile are taken from the information use survey and the interview based research undertaken by the Scottish Information Literacy Project.

*The wealth of knowledge available via the library is staggering but I'm not sure everyone is aware of it. The services should be more widely advertised.*

*It would be great if all new starts and many existing staff could have access to the same information and advice.*

*Some awareness-raising in the office about what Library Services can do for people is necessary.*

*Very good service – poorly understood. Took me a year of working here before I began to use [it] appropriately due to lack of knowledge about available services etc.*

*I was not aware of the Library Services or what it could offer.*

- Some respondents did not view Library Services as having any relevance to their work at all as shown by further comments from the two studies on the Library Services' profile.

*Why does anyone need a library these days? Google invariably turns up even fairly obscure publications.*

*Since everything has gone electronic, the library has faded into obscurity to me.*

*I prefer to search for things myself online.*

- People are searching for information and acquiring appropriate knowledge and skills, but this tends to be job or task specific and driven by business needs. Formal information literacy training is not taking place except in the form of internet training. However, the authors suspect that information literacy skills and competencies are being acquired through people learning from colleagues since “asking colleagues for help and information” was rated highly in both pieces of research (Irving C. 2006).
- Whilst all the respondents felt they had information literacy skills and competencies to a certain degree, the interview-based research found that it was in the evaluating of results and how to exploit results that some felt their skills could be improved. If one takes the information literacy cycle (Craig and Westwood, 2009) which identifies seven stages: source, find, evaluate, combine, share, apply and question, then the results suggest that interviewees believed they have some of the skills (namely finding information) but were lacking in the skills to evaluate, share and exploit their results.

## **5. Outcomes**

These research findings provide a number of challenges for the Scottish Government Library Services, but the combined findings of the two pieces of research, the (mainly quantitative) data from the information use survey and the qualitative data gleaned from the interviews, have given the authors a sound evidence base from which to take the IL agenda forward within the Scottish Government. Drawing out the key messages to convince senior management of the need for a strategic approach, an Information Literacy Strategy and an associated plan of action are being developed by Library Services.

### **5.1 The Information Literacy Strategy**

As a result of this research the Scottish Government Information Literacy Strategy aims to expand on the skills and behaviours of its workforce identified in the information use survey and the research undertaken by the Scottish Information Literacy Project. The objectives of this strategy are to define a framework for embedding core, transferable,

information literacy skills throughout the organisation at all levels, and to ensure that whenever and wherever there is learning in the SG it promotes an information literate approach.

## 5.2 Achievements to date

The authors are currently looking to secure support from Scottish Government senior management and a commitment to the Information Literacy Strategy. While the strategy is still going through its formal approval process major activities cannot be undertaken, but the authors have been able to deliver some 'quick wins', including:

- Increasing awareness of the key role that information literacy plays in underpinning the Scottish Government's strategic objectives and core values within the organisation.
- Writing a case study report on IL in the workplace for the Skills for Scotland Strategy Update website in collaboration with the researchers from the Scottish Information Literacy Project (Scottish Government 2009).
- Strengthening partnerships with internal stakeholders, including Corporate Learning Services, Human Resources Development Advisers, analysts and social researchers as well as the Digital Communications Team.
- Pursuing partnerships with external stakeholders, including the Scottish Information Literacy Project, NHS Education for Scotland, and the Chartered Institute of Librarians and Information Professionals in Scotland (CILIPS).
- Collaborating with Corporate Learning Services to develop a SG corporate induction event, which includes a session on searching skills and promotion of Library Services.
- Developing an information skills session for civil servants using social media tools in the workplace.
- Developing an information skills session for the Policy Skills Continuing Professional Development (CPD) Programme in the Scottish Government
- Setting up a community of practice, Creating an information literate Scotland, on the Information Service and IDeA Communities of Practice platform.

## 6. Future plans

Once the Information Literacy Strategy has been formally agreed by senior management the authors will move onto the delivery phase. Planned activities include:

- Working more closely and flexibly with learning colleagues within the SG to provide a more cohesive, joined up structure to training and skills development.
- Recommending information literacy skills as a basis for CPD for SG performance management competency frameworks. A requirement of CPD is the need to develop practice using the best available evidence and information skills will be invaluable for this.
- Providing more flexible learning options by developing e-learning products which will enable SG staff to access training and develop their skills at their own pace.
- Working in partnership with external contacts, including the Scottish Information Literacy Project and NHS Education for Scotland, aiming to learn from these

information and learning professionals, network, share ideas and possibly undertake further research on information literacy in the workplace.

- Undertaking further research by investigating the information needs and evaluating the skills of complex users (e.g. analysts, policy makers, lawyers, finance teams), and develop tailored information skills training.
- Enhancing the existing information skills training programme by developing 'Information into Evidence' and 'Advanced Information into Evidence' courses specifically for social researchers. These bespoke courses concentrate on subject specific resources.
- Raising the profile of information specialists and librarians in the SG, in particular, facilitating and supporting them in their role as information skills educators.
- Developing appropriate metrics for auditing current information literacy skills of SG staff and measuring the success of the strategy and its related activities.

## 7. Conclusion

To meet the challenges discussed above, the authors need to build on the progress made thus far. Information literacy must be directly aligned with the Scottish Government's organisational objectives and strategies, then followed through with support in the workplace via internal working partnerships.

The information literacy vision for the Scottish Government is for staff to have the skills and tools necessary to meet the information challenges ahead. The authors believe that an information literate worker will be a flexible, self-directed lifelong learner. An information literate workforce, able to locate, evaluate and use information for the benefit of the organisation, will increasingly be a key factor in the Scottish Government's success, saving the organisation time and resources, thus providing tangible return on investment and ensuring employability in a changing world.

The authors anticipate further research focusing particularly on the information needs of those SG staff in specialist areas, including analysts and policy makers. Future research will also include measuring and evaluating the value of developing information literacy skills for SG staff.

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